REMARKS

The amendments and remarks presented herein are believed to be fully responsive to the Office Action.

Claims 1-4, 8-17 and 19-20 are pending in the present application. Claims 1, 4, 12, 14, 19 and 20 have been amended. Claims 5-7, 18 and 21-22 have been canceled, without prejudice. No new matter has been added. The independent claims recited by the present application are claims 1, 12 and 20.

Examiner Interview Summary: Attorney (Changhoon Lee) for the Applicant conducted a telephonic interview with Examiner Marcus D. Jones and Examiner John M. Hotaling II on December 1, 2008. The discussion between the Examiners and the Attorney focused on the claimed invention in light of the cited references. The Attorney presented that the claimed invention, particularly the limitation of "user behavior pattern database based on the respective users' actual playing of the game," is patentably distinguishable over Oh and Farnham. In accordance with the Examiners suggestion, Applicant amends the claims to clarify the claimed invention that the system monitors respective users' actual playing of a game, analyzes how the respective users have played the game based upon game skill and patterns of the play and determines a user's game behavior pattern for a game selected by the user based on the user's actual playing of the game.

The following are remarks were presented to the Examiner in draft form prior the interview:

CLAIM OBJECTIONS:

Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, particularly, claims 12 and 20 recite unclear contents of the parenthesis.

Applicant respectfully amends claims 12 and 20 in accordance with the Examiner's suggestion.

CLAIM REJECTIONS:

The Office Action states that claims 1-3, 8-18 and 21-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Oh (U.S. Patent Publication No. 2005/0171998) (hereinafter "Oh") in view of Farnham et al. (U.S. Patent Publication No. 2005/0192097) (hereinafter "Farnham et al."). Applicants respectfully traverse these rejections.

Both Oh and Farnham et al. or combination thereof fails to teach or suggest all the elements recited in the independent claim 1 of the present application.

The claimed invention is directed to a matchmaking service for multiplayer online computer games. The claimed invention prevents collaborative users for deceit from manipulating matchmaking by conspiring together to enter a same game room. To achieve the goal, the claimed invention determines game behavior patterns of players **based on the respective players' actual playing of the game, not a survey information** and the channel server disclosed by the claimed invention selects one of the random channels for the game based on the respective users' game behavior pattern information. **The claimed invention eliminates the "desires" of the players in a matchmaking process, whereas the system disclosed in Farnham et al. matches players based upon the "desires" of the players.**

The claim 1 as amended herein recites, among the other limitations, the following limitations:

the game server –

(a) monitoring respective users' actual playing of the game,

(b) analyzing how the respective users have played the game based upon game skill and patterns of the play, and

(c) determining game behavior patterns of the respective users by using the at least one behavior pattern reference stored in the user behavior pattern database based on the respective users' actual playing of the game

The amended limitations are supported by the previously amended claims (claims 1, 11 and 18 of the Amendment A) and the original specification, such as paragraphs [0015], [0022] ~[0023], and [0044] ~ [0046].

The Examiner rejects claim 1 as follows:

Oh fails to specifically disclose a user behavior pattern
database and a game server determining game behavior
pattern of the respective users who play the game based on
the respective users' actual playing of the game. Farnham
teaches a user profile that can contain a number of
different parameters associated with the user (pg 4, par
44) that is connected to a network database (pg 9, par 67).
Farnham further teaches collaborative filtering in the
matchmaking system to match users by certain criteria based
upon the response of others as well as the user (pg 8, par
65). Farnham also teaches that the collaborative filtering
methods produce ratings of an individual, a game and/or an
experience and may be based on computation of various types
of information, such as responses from a user after a game
has been player (pg7, par 61)

The Applicant previously asserts that neither Farnham nor Oh teaches the game server of the claimed invention, which determines game behavior patterns of the users who play the game based on the respective users' actual playing of the game. In response to the Applicant's arguments, the Examiner responded as follows:

> Farnham further teaches collaborative filtering in the matchmaking system to match users by certain criteria based upon the response of others as well as the user (pg 8, par 65). Farnham also teaches that the collaborative filtering methods produce ratings of an individual, a game and/or an experience and may be based on computation of various types of information, such as responses from a user after a game has been played (pg 7, par 61). **As can be appreciated, when a user inputs information of another users' play style, etc. the user must have played a game with that user on which to base their response.**

In rejecting the Applicant's arguments, the Examiner refers to Farnham et al., pg 8, par 61 & 65 which recite as follows:

> [0061] **FIGS. 8A and 8B are example graphical user interfaces for accumulating data from players in an online gaming environment in accordance with at least one aspect of the present invention.** ... **Collaborative filtering methods employ and/or produce ratings, e.g., an evaluation of an individual, a game, and/or an experience. Collaborative filtering may be based on computation of various types of information, such as responses received from a user after a game has been played.** Based upon the information received by means of collaborative filtering methods, a player can be matched to a certain game and/or recommended game. Collaborative filtering methods for document retrieval, product purchases, and/or product recommendations are well known in their respective arts.
>
> [0065] Collaborative filtering allows the matchmaking system to match a user to a particular game and/or player based upon the response received from others and the user that are associated with the user. For example, if user I has indicated in the past that she like to participate in sports games with Mike, and user 2 has indicated in the past that she likes to participate in sports games with user 1, the matchmaking system, by collaborative filtering, can match user 2 into a sports game with Mike based upon

the associated connection with user 1. … **Under another collaborative filtering method the determination to match a user may be based upon the desires of the user herself as well as other players.** For example, if user 1 is a more aggressive player, her preferences based on a one way collaborative filtering process may be to play against a less aggressive player. In a one way filter determination, user 1 may seem to be an accurate match with player 2. However, player 2 may dislike participating against more aggressive players in a gaming environment and may be a comparatively low probability collaborative filtering match with user 1. … **(Emphasis added).**

FIGURE 8B

As the Examiner indicates in the Office Action, the Farnham et al. method receives answers from users who played a game after the game has been played. That is, each player inputs subjective information for himself/herself or other players. The system disclosed in Farnham et al. matches players **based upon the "desires" of the players**. (see pg. 8, par 65 and Fig.. 8B). The Examiner asserts that since the collaborative filtering method collects answers from the user (whether or not a user or another user) **after a game has been played**, Farnham et al. teaches the claimed invention that determines game behavior patterns of the users who play the game **based on the respective users' actual playing of the game**.

Applicant respectfully disagrees. **The claimed invention matches players based on how the players played, not on what the players think, whereas the system disclosed in**

Farnham et al. matches players based on what the players think, not on how the players played.

The problem to be solved by the present invention is to prevent game players from collaboratively manipulating matchmaking process. __The claimed invention eliminates the__ __"desires" of the players in the matchmaking process.__ In the above Fig. 8B, for example, what if a player A and B who played a previous game together and answer the post game analysis input collaboratively manipulated answers. Even after a game has been played, they could manipulate the matchmaking process by providing manipulated information. On the other hand, the claimed invention analyzes the respective users' actual playing of the game and determines game behavior patterns based on the actual playing for the matchmaking process. Whether a user fills out the electronic form <u>before or after</u> a game has been played, the users can always manipulate their answers. Whereas, the claimed invention does not allow a user to input manipulated information because it analyzes the actual playing of the game.

### Response to the Examiner's findings

User Profile of Farnham et al.

The Examiner asserts that the user profile disclosed in Farnham et al. includes general skill level of the user as well as play style information of the user. Again, the information included in the user profile was not based upon respective users' actual playing of the game, but base upon a response from the user. For example, Farnham et al., pg 8, par 61 & 65 which recite as follows:

> [0045] <u>If a profile is found not to exist for a user at</u> <u>step 204, a further determination is made as to whether the</u> <u>user wishes a new profile to be created for the user at</u> <u>step 216.</u> Such a determination may be an inquiry by the matchmaking service to the user and receiving a response

from the user acknowledging the desire of the user to have a profile created. If there is a request to create a user profile, the process proceeds to step 218 where a user profile is created. With the user profile created in step 218, the process returns to step 204. However, if the user does not want a profile created at step 216, at step 220, a determination is made as to whether a game category, game type, and/or game **has been selected by the user.** If a game category, game type, and/or game has been selected at step 220, the process continues to step 230 in FIG. 2B.

[0046] At step 230, a determination is made as to whether all parameter(s) have been selected by the user and/or whether all parameter(s) required by the system have been selected. If all parameter(s) have been selected, the process proceeds to step 232 where the user is matched to other users/players to play a game based at least in part upon the selected parameter(s). **If all parameter(s) have not been selected at step 230, the process proceeds to step 240 where a determination is made as to whether a parameter has been selected.** If a parameter has been selected at step 240, the process proceeds to step 242 where a determination is made as to whether the selected parameter is a skill level parameter of the user. If the answer is yes, the method identifies the skill level as the selected parameter at step 244 and then the process returns to step 230. If skill level is not the selected parameter in step 240, the process proceeds to step 252 where a determination is made as to whether the selected parameter is a technical capability of the user's computer and/or connection speed. If the answer is yes, the method identifies the technical capability as the selected parameter in step 254 and them the process returns to step 230. If technical capability is not the selected parameter at step 252, the process proceeds to step 262 where the method identifies play style as the selected parameter and the process returns to step 230. Under such a system, a user/player can be matched in a game with other users/players based upon conventional parameters such as general skill level and technical capabilities as well as play style information associated with and/or chosen by the user/player. Although not shown in this example, a user may be connected by personal attribute parameters in the alternative or as well.

FIGURE 2A

FIGURE 2B
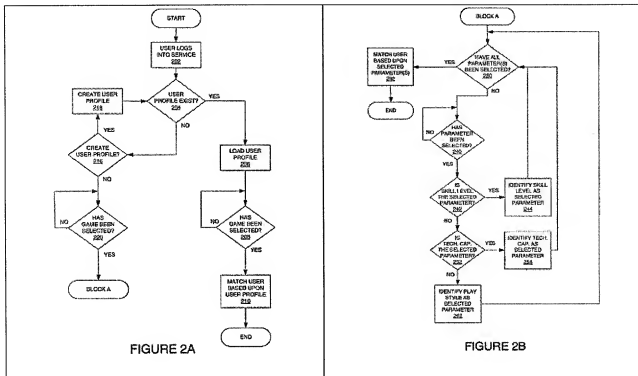
All the information included in the user profile is created based upon the user's selections, not the analysis of the respective users' actual playing of the game.

It is well-known technology that a user selects various parameters, such as a skill level of the game, counter-players to play with and other information related to the game during the game selection process. Farnham et al. teaches a matchmaking service whose system determines matchmaking based upon the conventional user's selection of various parameters, such as the skill level of the game, characters of counter-players to play, and etc. The Examiner asserts that Farnham et al. teaches (1) use of the skill level of the game for determining matchmaking and (2) determination of the user profile information, such as skill level, after the game has been played. However, the matchmaking system of Farnham et al. collects all the information, including skill level and play style, based upon user's own selections or at most the other user's selections.

Farnham et al. does not teach or suggest the limitations of claim 1, particularly, the game server (1) monitors respective users' actual playing of the game, (2) analyzes how the respective users have played the game based upon game skill and patterns of the play, and (3) determines game behavior patterns of the respective users by using the at least one behavior pattern reference stored in the user behavior pattern database based on the respective users' actual playing of the game. Neither Oh nor Farnham et al. nor combination thereof teaches or suggests those limitations of claim 1. As such, Farnham et al. does not teach or suggest limitations recited in the independent claim 1 of the present application. Thus, claim 1 is now allowable over the cited prior art.

Claims 12 and 20

Both claims 12 and 20 recite, among the other limitations, the following limitations:

(a) monitoring respective users' actual playing of a game;

(b) analyzing how the respective users have played the game based upon game skill and patterns of the play; and

(c) determining a user's game behavior pattern for the game selected by the user based on the user's actual playing of the game.

Since the above limitations are similar to the limitations recited in claim 1, the above arguments presented by Applicant will be applied to claims 12 and 20. Thus, claims 12 and 20 are now allowable over the cited prior art.

Claims 2-4 and 8-11

Claims 2-4 and 8-11 depend from independent claim 1 and, as such, are in allowable condition since claim 1 is clearly allowable over the cited prior art.

Claims 13-17 and 19

Claims 13-17 and 19 depend from independent claim 12 and, as such, are in allowable condition since claim 12 is clearly allowable over the cited prior art.

Claims 4 and 19

Both claims 4 and 19 recite the following limitations:

"the game service is a computer card game and the patterns of the play includes patterns of the respective users' betting."

Neither Oh nor Farnham et al. nor combination thereof teaches or suggests the steps of (a) monitoring respective users' actual playing of a card game; (b) analyzing how the respective users have played the card game based upon game skill and patterns of the respective users' betting for the card game; and (c) determining a user's game behavior pattern for the game selected by the user based on the user's actual playing of the card game. Thus, claims 4 and 19 are now allowable over the cited prior art.

In light of the aforementioned amendments and discussion, Applicant respectfully submits that the application is now in condition for allowance.

If any issue regarding the allowability of any of the pending claims in the present application could be readily resolved, or if other action could be taken to further advance this application such as an Examiner's amendment, or if the Examiner should have any questions regarding the present amendment, it is respectfully requested that the Examiner please telephone Applicant's undersigned attorney in this regard.

Respectfully submitted,

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